<u>/16</u>

Patent Claims

- 1. Sensor device for a vehicle control system, comprising -a buffer for geographic information, whereby the geographic information is suitable to describe at least one possible route of the vehicle, -an input interface to select a subset of the geographic information stored in the buffer, whereby the selection is effected by the provision of at least one position-related parameter at the input interface, -an output interface to output the subset of the geographic information corresponding to the parameter values provided, whereby the output information is sent for further processing in the vehicle control system.
- 2. In application of Claim 1, the sensor device is characterized by the fact that the buffer is overwritable.
- 3. In application of Claim 2, the buffer is characterized by the fact that it is designed as a flash ROM.
- 4. In application of any one of Claims 1 to 3, the sensor device is characterized by the fact that the input and/or output interface is connected to a vehicle-based information network.
- 5. In application of any one of Claims 1 to 4, the sensor is characterized by the fact that geographic information is partially and/or incrementally and/or completely changeable.
- 6. In application of Claim 5, the sensor device is characterized by the fact that the change is performed by means of a data transmission line connected to the buffer.
- 7. In application of any one of Claims 1 to 6, the sensor device is characterized by that fact that a geographic position of the vehicle and/or a geographic area based

- thereon and/or route section based thereon are provided as a parameter value at the input interface.
- 8. In application of any one of Claims 1 to 7, the sensor device is characterized by the fact that an EDP connection with a vehicle-based telematics platform is provided.
- 9. In application of any one of Claims 1 to 8, the sensor device is characterized by that fact that an EDP connection with a vehicle-based road impact fees calculator is provided.
- 10. In application of any one of Claims 1 to 9, the sensor device is characterized by the fact that an EDP connection with a navigation system is provided.
- 11. In application of Claim 10, the sensor device is characterized by the fact that the navigation system is centrally based.
- 12. In application of any one of Claims 1 to 11, the sensor device is characterized by the fact that the geographic information is certified.
- 13. In application of any one of Claims 1 to 12, the sensor device is characterized by the fact that a non straight, parameter-based, partial section of a route is described as a circular arc or a clothoid or a spline.
- 14. In application of any one of Claims 1 to 13, the sensor device is characterized by the fact that the geographic information is used for one or several routes of the vehicle.
- 15. In application of any one of Claims 1 to 14, the sensor device is characterized by the fact that the vehicle is a commercial vehicle.
- 16. In application of any one of Claims 1 to 15, the sensor device is characterized by the fact that it is an intelligent sensor.

17. In application of any one of Claims 1 to 16, the sensor device is characterized by the fact that the geographic information only applies to highways.